


<b>ORDER FOR SUPPLIES OR SERVICES</b>										PAGE 1 OF 8			
1. CONTRACT/PURCH. ORDER/ AGREEMENT NO. N00039-11-D-0030			2. DELIVERY ORDER/ CALL NO. 0063		3. DATE OF ORDER/CALL (YYYYMMDD) 2013 May 09		4. REQ./ PURCH. REQUEST NO. 1300349171			5. PRIORITY			
6. ISSUED BY SPAWAR SYSTEMS CENTER PACIFIC JESSE MARTINEZ CODE 22410 JESSE.A.MARTINEZ@NAVY.MIL 53560 HULL STREET SAN DIEGO CA 92152-5001				CODE N66001		7. ADMINISTERED BY (if other than 6) DCMA VIRGINIA 10500 BATTLEVIEW PARKWAY SUITE 200 MANASSAS VA 20109				CODE S2404A  SCD: C			
8. DELIVERY FOB <input checked="" type="checkbox"/> DESTINATION <input type="checkbox"/> OTHER  (See Schedule if other)													
9. CONTRACTOR AMSEC LLC JANICE KOTZHE 2829 GUARDIAN LN VIRGINIA BEACH VA 23452-7328						CODE 1LT84		FACILITY		10. DELIVER TO FOB POINT BY (Date) (YYYYMMDD) <b>SEE SCHEDULE</b>			
11. MARK IF BUSINESS IS <input type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGED <input type="checkbox"/> WOMEN-OWNED						12. DISCOUNT TERMS							
13. MAIL INVOICES TO THE ADDRESS IN BLOCK See Section G of Task Order													
14. SHIP TO  <b>SEE SCHEDULE</b>						CODE		15. PAYMENT WILL BE MADE BY DFAS COLUMBUS CENTER DFAS-CO/SOUTH ENTITLEMENT OPERATIONS P.O. BOX 182264 COLUMBUS OH 43218-2264					
16. TYPE OF ORDER DELIVERY/ CALL <input checked="" type="checkbox"/> PURCHASE X This delivery order/call is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract. Reference your quote dated Furnish the following on terms specified herein. REF:						MARK ALL PACKAGES AND PAPERS WITH IDENTIFICATION NUMBERS IN BLOCKS 1 AND 2.							
ACCEPTANCE. THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.													
NAME OF CONTRACTOR				SIGNATURE				TYPED NAME AND TITLE				DATE SIGNED (YYYYMMDD)	
<input type="checkbox"/> If this box is marked, supplier must sign Acceptance and return the following number of copies:													
17. ACCOUNTING AND APPROPRIATION DATA/ LOCAL USE  <b>See Schedule</b>													
18. ITEM NO.		19. SCHEDULE OF SUPPLIES/ SERVICES  <b>SEE SCHEDULE</b>				20. QUANTITY ORDERED/ ACCEPTED*		21. UNIT		22. UNIT PRICE		23. AMOUNT	
* If quantity accepted by the Government is same as quantity ordered, indicate by X. If different, enter actual quantity accepted below quantity ordered and encircle.						24. UNITED STATES OF AMERICA TEL: 619-553-0661 EMAIL: joaquin.sanchez@navy.mil BY: Joaquin Sanchez		(b)(6) 		25. TOTAL \$2,171,086.18		26. DIFFERENCES	
27a. QUANTITY IN COLUMN 20 HAS BEEN <input type="checkbox"/> INSPECTED <input type="checkbox"/> RECEIVED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED													
b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE						c. DATE (YYYYMMDD)		d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE					
e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE						28. SHIP NO.		29. DO VOUCHER NO.		30. INITIALS			
f. TELEPHONE NUMBER				g. E-MAIL ADDRESS				<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		32. PAID BY		33. AMOUNT VERIFIED CORRECT FOR	
36. I certify this account is correct and proper for payment.						31. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL				34. CHECK NUMBER		35. BILL OF LADING NO.	
a. DATE (YYYYMMDD)		b. SIGNATURE AND TITLE OF CERTIFYING OFFICER											
37. RECEIVED AT		38. RECEIVED BY		39. DATE RECEIVED (YYYYMMDD)		40. TOTAL CONTAINERS		41. S/R ACCOUNT NO.		42. S/R VOUCHER NO.			

## Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002			Lot		(b)(4)

Services

FPI

This is a Completion / Non-Severable / Fixed Price Incentive (FPI) Type Task Order.

FOB: Destination

TARGET COST

(b)(4)

TARGET PROFIT

(b)(4)

TOTAL TARGET PRICE

(b)(4)

CEILING PRICE

(b)(4)

SHARE RATIO ABOVE TARGET

50/50

SHARE RATIO BELOW TARGET

50/50

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000201			Lot		\$0.00

(b)(7)(e)

HI LABOR WITH PROFIT

FPI

Services IAW the PWS. TN 13-4487/Alt ID 130462.

FOB: Destination

PURCHASE REQUEST NUMBER: 1300349171

TARGET COST

\$0.00

TARGET PROFIT

\$0.00

TOTAL TARGET PRICE

\$0.00

CEILING PRICE

\$0.00

SHARE RATIO ABOVE TARGET

SHARE RATIO BELOW TARGET

ACRN AA

CIN: 130034917100001

(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005	Other Direct Costs (ODCs) COST Other Direct Costs (ODCs): including Miscellaneous Subcontracts, Material/Equipment/Transportation, Travel/Per Diem FOB: Destination		Lot		(b)(4)
				ESTIMATED COST	(b)(4)

000501      TN 13-4487/Alt ID 130462.      ACRN AA      (b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006	Contract Data Requirements List DD 1423		Lot		NSP

The contractor shall provide a full range of support services for installation of Information Technology (IT) Systems at (b)(7)(e) Ford Island, Hawaii.

Total direct labor hours for this task order is (b)(4)

MAIL TO (COR COPIES/MISC. DOCUMENTS)

Receiving Officer

N69255 SPAWAR Systems Center San Diego

Code 41101 (b)(6)

4297 Pacific Highway, Bldg OT7

San Diego, CA 92110

## Section E - Inspection and Acceptance

## INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0002	Destination	Government	Destination	Government
000201	Destination	Government	Destination	Government
0005	Destination	Government	Destination	Government
000501	Destination	Government	Destination	Government
0006	Destination	Government	Destination	Government

## Section F - Deliveries or Performance

## DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0002	(b)(7)(e)	N/A	N/A FOB: Destination	
000201		N/A	N/A FOB: Destination	
0005		N/A	N/A FOB: Destination	
000501		N/A	N/A FOB: Destination	
0006		N/A	SPAWAR SYSTEMS CENTER RECEIVING OFFICER 4297 PACIFIC HWY, BLDG OT7 SAN DIEGO CA 92110 (619) 524-2271 FOB: Destination	N69255

## Section G - Contract Administration Data

## ACCOUNTING AND APPROPRIATION DATA

AA: 97X4930 NH3P 252 77777 0 050120 2F 000000

COST CODE: A00001718748

AMOUNT: \$2,171,086.18

CIN 130034917100001: (b)(4)

CIN 130034917100002: (b)(4)

## CLAUSES INCORPORATED BY FULL TEXT

252.204-0001 LINE ITEM SPECIFIC: SINGLE FUNDING. (SEP 2009)

The payment office shall make payment using the ACRN funding of the line item being billed.

(End of clause)

**5252.232-9208 INVOICING INSTRUCTIONS FOR SERVICES USING WIDE AREA WORK FLOW (WAWF) (APR 2009)**

(a) Invoices for services rendered under this task order shall be submitted electronically through the Wide Area Work Flow-Receipt and Acceptance (WAWF). The contractor shall submit invoices for payment per contract terms. The Government shall process invoices for payment per contract terms.

(b) The vendor shall have their Cage Code activated by calling 1-866-618-5988 and selecting option 2. Once activated, the vendor shall self-register at the WAWF website at <https://wawf.eb.mil>. Vendor training is available on the internet at <https://wawftraining.eb.mil>. WAWF Vendor "Quick Reference" Guides are located at the following web site: [http://acquisition.navy.mil/rda/home/acquisition\\_one\\_source/ebusiness/don\\_ebusiness\\_solutions/wawf\\_overview/vendor\\_information](http://acquisition.navy.mil/rda/home/acquisition_one_source/ebusiness/don_ebusiness_solutions/wawf_overview/vendor_information)

(c) Cost back-up documentation (such as delivery receipts, labor hours & material/travel costs etc.) shall be included and attached to the invoice in WAWF. Attachments created with any Microsoft Office product or Adobe (.pdf files) are attachable to the invoice in WAWF. The total size limit for files per invoice is 5 megabytes. A separate copy shall be sent to the COR/TOM.

(d) Contractors approved by DCAA for direct billing will not process vouchers through DCAA, but may submit directly to DFAS. Vendors MUST still provide a copy of the invoice and any applicable cost back-up documentation supporting payment to the Acceptor/Contracting Officer's Representative (COR) if applicable. Additionally, a copy of the invoice(s) and attachment(s) at time of submission in WAWF shall also be provided to each point of contact identified in section (g) of this clause by email. If the invoice and/or receiving report are delivered in the email as an attachment it must be provided as a .PDF, Microsoft Office product or other mutually agreed upon form between the Contracting Officer and vendor.

(e) A separate invoice will be prepared no more frequently than for every two weeks. Do not combine the payment claims for services provided under this contract.

(f) The following information is provided for completion and routing of the invoice in WAWF:

WAWF Invoice Type *	2-n-1 (services only)
Issuing Office DODAAC	N66001
Admin DODAAC	S2404A
Inspector DODAAC (if applicable)	NA
Inspector Contact Information	NA
Service Acceptor DODAAC or Service Approver DODAAC (Cost Voucher).	N66001
Acceptor Contact Information	(b)(6) COR, 619-524-2485, (b)(6)
COR Contact Information	(b)(6) COR, 619-524-2485, (b)(6)
LPO Contact Information	NA
DCAA Auditor DoDAAC :	NA
Service Approver DoDAAC :	NA
PAY DODAAC	HQ0338

(g) After submitting the document(s) to WAWF, click on “Send More Email Notifications” and add the acceptor/receiver email addresses noted below in the email address blocks. The contractor shall, at a minimum, include the COR, Receiver, and Acceptor. This additional notification to the government is necessary to ensure that the acceptor/receiver is aware that the invoice documents have been submitted into WAWF:

Send Additional Email Notification(s) to:			
Name	Email	Phone	Role
(b)(6)		619-524-2782	ACOR

## Section J - List of Documents, Exhibits and Other Attachments

## Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Exhibit A	CDRL	14	1-MAY-13
Attachment 1	PWS	21	9-APR-13
Attachment 2	QASP	1	



**PERFORMANCE WORK STATEMENT  
FIXED PRICE INCENTIVE (FIRM TARGET)  
ATTACHMENT 1  
REVISION A**

**DATE:** 26 March 2013 (Rev A: 9 April 2013)

**TO RFP:** 1422

**EMR:** 42100-30851

**START:** Upon Award

**Revision A:** Adds Updated List of Material (ref. 2.2.4), and minor requirements revisions. Adds citizenship requirement to Security (para. 6.1)

**SHORT TITLE:** Installation of Information Technology (IT) Systems at (b)(7)(e)  
Ford Island, Hawaii

**1. SCOPE**

This performance-based effort encompasses a full range of the Main Facility's IT, cabling infrastructure, network equipment, Voice over IP (VoIP), Audio Visual/Video Teleconference (AV/VTC), and Radio Frequency (RF) Systems installation support services. Installation of the following systems is required:

**1.1 PLACES AND DATES OF PERFORMANCE**

- 1.1.1** (b)(7)(e) Ford Island, Hawaii
- 1.1.2** Contractor's facilities
- 1.1.3** SPAWARSSYSCEN Pacific, (b)(7)(e) Pearl City, Hawaii

**1.2 SCHEDULE OF REQUIRED SYSTEMS**

Site	System	TN (Alt ID)	Production Dates (to include configuration and preliminary checks)	SOVT Dates (SOVT Support)	Period of Performance
(b)(7)(e)	Cabling Infrastructure, Network, VoIP, AV/VTC, RF Systems	13-4487 (130462)	(b)(7)(e)	(b)(7)(e)	(b)(7)(e)

**NOTE:** Dates subject to change. Task for this PWS must be **completed by** (b)(7)(e)

The Contractor must be able to provide sufficient technical expertise, services, and materials as necessary to effectively and efficiently install and verify operation in order to provide fully functional systems listed in this PWS.

During performance, the use of web-enabled tools for management will be maximized including status reporting, financial reporting, task order management, and task order modifications. This will be accomplished via posting to the Regional Installation Management Office (IMO) web-enabled database. To the maximum extent practical, all deliverables under this contract shall be delivered in formats compatible with the latest NMCI Gold Disk applications.

The technical representative assisting the KO in the administration of the whole contract is the COR who has no contractual authority to obligate the government. The Contractor is warned that only the Ordering Officer (or other

designated Contracting Officer) has the authority to obligate the government and make changes to this task order. No other government personnel have such authority.

## **2.0        REFERENCES**

In the event of a conflict between the text of this PWS and the applicable document cited herein, the text of this PWS shall take precedence. Nothing in this PWS, however, shall supersede applicable laws and regulations unless exemption has been obtained.

- 2.1.1**    SPAWAR Global C4ISR Installations Contract (SE II)
- 2.1.2**    SPAWAR 04 Shore Installation Process Handbook (SIPH) Latest Version
- 2.1.3**    Code of Federal Regulations Title 26, part 1910 (Occupational Safety and Health Requirements, General)
- 2.1.4**    (b)(7)(e) IT Standards Guide – 8 May 2007.
- 2.1.5**    TIA-607-B, Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises.
- 2.1.6**    National Electrical Safety Code (NESC), 2012 Edition.
- 2.1.7**    National Fire Protection Association (NFPA) 75, Standard for the Fire Protection of Information Technology Equipment, 2009 Edition.
- 2.1.8**    National Fire Protection Association (NFPA) 76, Standard for the Fire Protection of Telecommunications Facilities, 2012 Edition.
- 2.1.9**    ANSI/TIA-568-C.0, General Telecommunications Cabling for Customer Premises, including Addendum 1, Updated References for Balanced Twisted-Pair, and Addendum 2, General Updates.
- 2.1.10**   ANSI/TIA-568-C.1, Commercial Building Telecommunications Cabling Standard, including Addendum 1-Pathways and Spaces, and Addendum 2-General Updates.
- 2.1.11**   ANSI/TIA-568-C.2, Balanced Twisted-Pair Telecommunications Cabling and Components Standards, including errata sheet.
- 2.1.12**   ANSI/TIA-568-C.3, Optical Fiber Cabling Components Standard, including Addendum 1, Addition of OM4 Cabled Optical Fiber and Array Connectivity.
- 2.1.13**   ANSI/TIA-568-C.4, Broadband Coaxial Cabling and Components Standard.
- 2.1.14**   ANSI/TIA-569-C, Telecommunications Pathways and Spaces.
- 2.1.15**   ANSI/TIA-606-B, Administration Standard for Commercial Telecommunications Infrastructure.
- 2.1.16**   ANSI/TIA-942-A, Telecommunications Infrastructure Standard for Data Centers.
- 2.1.17**   OSHA 2206 Occupational Safety and Health Administration General Industry Standards

## **2.2        Government Furnished Information**

- 2.2.1    Installation Drawing Package (IDP)**
  - 2.2.1.1**    010-2134487 Site Master Index
  - 2.2.1.2**    020-2134487 Master Plans
  - 2.2.1.3**    022-2134487 Master Parts List
  - 2.2.1.4**    040-2134487 Floor Plans and Elevations
  - 2.2.1.5**    060-2134487 Simplified Block Diagrams
  - 2.2.1.6**    070-2134487 Cabling Block Diagrams
  - 2.2.1.7**    110-2134487 Circuit Diagrams
  - 2.2.1.8**    120-2134487 Labeling Details
  - 2.2.1.9**    130-2134487 Patch Panel Layouts
  - 2.2.1.10**   160-2134487 Cable Pathway Layouts
  - 2.2.1.11**   180-2134487 Miscellaneous Installation Details
  - 2.2.1.12**   190-2134487 Miscellaneous Equipment and Strapping Details
- 2.2.2**    Installation Schedule.pdf
- 2.2.3**    (b)(7)(e) IT Standards Guide – 8 May 2007
- 2.2.4**    (b)(7)(e) List of Material.pdf

### 3.0 **PERFORMANCE REQUIREMENTS**

Requirements Summary:

System/Site	TN	Site Survey	IDP Development	De-Install	Equipment Disposal	H/W Installation	SOVT Support	Red Line DWG
(b)(7)(e)	13-4487					X	X	X

#### 3.1 **GENERAL Requirements**

- 3.1.1 All efforts under this Task Order shall be in conformance with the requirements of the Basic Contract, Ref. 2.1.1.
- 3.1.2 Comply with all requirements established by SPAWAR Shore Installation Process Handbook (SIPH) 3.0.
- 3.1.3 Include a detailed breakout of all costs by system in the estimate for this tasking, including estimates provided by team members or authorized sub-contractors. Details required include: labor hours and burdened labor costs by labor category; material and material transportation costs; travel and per diem charges; and Other Direct Costs (ODCs).
- 3.1.4 Perform task in accordance with the following Quality and Safety provisions:
  - 3.1.4.1 Develop a Quality Management System (QMS) QA Workbook (CDRL A011) and submit to applicable SPAWARSYSCEN (SSC) PAC Quality Assurance (QA) Manager for review not later than 5 days prior to commencing work. QA Records shall be maintained on site and updated daily through the production phase.
- 3.1.5 Comply with the Occupational Safety and Health Act (OSHA) Code of Federal Regulations (CFR) Title 26, and the resulting OSHA Standards 1910 (General) for the protection, safety and health of employees and any subcontractors assigned to this Task/Delivery Order.
- 3.1.6 Accomplish Isolation and Tag-outs IAW local site procedures. Any specific (b)(7)(e) procedures will be provided at task award.
- 3.1.7 Certified test equipment that are within the authorized calibration dates shall be provided for testing telecommunications copper, fiber, and RF cabling.
- 3.1.8 Roll back, or dispose of, Government Furnished Material/Equipment acquired in support of this Task/Delivery Order as directed by the On Site Government Representative (OSGR).
- 3.1.9 Perform workmanship in accordance with applicable references, industry standards and specifications identified in this order.
- 3.1.10 Perform quality control inspections identified in this Task/Delivery Order or procedural quality system document.
- 3.1.11 Submit Change Order Request Notifications (CORNs) via the IMO Database within 48 hours of discovery of any condition that impacts cost or schedule. Include a description of the condition, an assessment of its impact on the installation, recommended corrective action, and an estimate of the cost to correct.
- 3.1.12 Provide electronic deliverables in formats compatible with the latest NMCI Gold Disk applications.
- 3.1.13 Provide a detailed Plan of Action and Milestones (POAM) for accomplishing the requirements of this order. POAM shall be developed IAW SPAWAR SIPH v3.0 and delivered within two weeks of task award.
- 3.1.14 Task will be performed within the availability window listed in paragraph 1.b. Specific dates within that window shall be coordinated with both the On Site Government Representative(s) (OSGR) and (b)(7)(e) Project Manager (PM).

#### 3.2 **Pre-Installation**

- 3.2.1 An installation planning meeting will be held with the (b)(7)(e) PM and Onsite Government Representative(s) within five working days of Task Order authorization.
- 3.2.2 Procure all material identified as Contractor/CFM/CFE/IAF on IDP drawings, Ref 2.2.4.

- 3.2.3 Receive and inventory government furnished material and equipment ensuring proper QA and material management. Any discrepancies shall be reported to the Onsite Government Representative(s) via e-mail within 48 hours of discovery.
- 3.2.4 Perform site surveys to validate the information provided in the IDP drawings.
- 3.2.5 Perform inspections, testing, and/or assembly to the maximum extent practicable, to facilitate the installation schedule.
- 3.2.6 Stage the combined Installation Material Kits/Tools for shipment to the job site to meet installation schedule.
- 3.2.7 A company representative shall accompany the Onsite Government Representative(s) during the in-brief.
- 3.2.8 Coordinate with the Onsite Government Representative(s) in identifying and requesting a work site staging area.
- 3.2.9 Ensure all personnel assigned to this project have credentials for access to Ford Island.
- 3.2.10 Coordinate all management efforts required to complete the systems installation. Efforts are to include:
  - 3.2.10.1 Submit all visit/clearance information
  - 3.2.10.2 Obtain all required passes and badges
  - 3.2.10.3 Obtain all required work authorizations and permits
  - 3.2.10.4 Submit HAZMAT handling requests
  - 3.2.10.5 Coordinate material handling with the Onsite Government Representative(s) and (b)(7)(e) Facility Manager
  - 3.2.10.6 Coordinate all sub-contracting and pre-fabrication requirements
  - 3.2.10.7 Provide financial, schedule, and performance tracking
  - 3.2.10.8 Attend production review meetings with the Onsite Government Representative(s)
  - 3.2.10.9 Remove and reinstall interference items.
  - 3.2.10.10 Install equipment labels and cable tags.
  - 3.2.10.11 Maintain a set of daily updated "redlined" installation drawings on site for the duration of the installation.
  - 3.2.10.12 Provide all tools necessary to complete the installation.

### 3.3 Installation Requirements

- 3.3.1 Lead installers shall be certified to the level of BiCSi ITS Technician and have experience working on large projects. All other installers shall be certified at the BiCSi ITS Installer 1 level. The ratio of BiCSi ITS Technician to BiCSi ITS Installer 1 shall not be greater than 4:1. Additionally, all fabrication of optical fiber connectors shall be performed by an installer that is certified to the level of BiCSi ITS Installer 2, Optical Fiber.
- 3.3.2 Electrical work, including, but not limited to, the installation and concealment of new conduit, cable trays, cabling, and device boxes in the existing walls, under raised flooring, above ceilings, and in cabinetry, provide electrical connections for projectors, projector screens and equipment cabinets, and the installation and relocation of power outlets in the AV/VTC rooms and telecommunications rooms for CATV shall be performed by an electrician licensed by the State of Hawaii.
- 3.3.3 Incidental work in support of the electrical work, including but not be limited to, cutting and patching drywall, spot painting, cutting and patching cabinetry, and repairing any damaged cabinetry and trim in the AV/VTC rooms and telecommunications rooms for CATV shall be performed by a contractor licensed by the State of Hawaii in his specific trade.
- 3.3.4 A minimum of three scaffolds for accessing ceilings with heights between 8 feet and 12.5 feet shall be provided for a minimum of four months. At least one scaffold shall be adjustable to accommodate the sloped floor of the auditorium.
- 3.3.5 All electronic equipment shall be grounded to the provided grounding busbars.
- 3.3.6 All surfaces that have had final finishes disturbed due to the installation work of this task order, but not limited to cutting, sanding, grinding, and welding, shall be restored to their pre-installation condition.

### 3.4 Cabling Infrastructure

- 3.4.1 (b)(7)(e) Distribution Cabling Installation - Main Facility Building 175, 176, A, Ford Island, HI:
- 3.4.1.1 Install, terminate, test, and troubleshoot CAT6A, CAT3, and fiber distribution cabling IAW the Installation Design Plan (IDP) in Ref 2.2.1.

- 3.4.1.2 Install, terminate, test, and troubleshoot CAT6A cables between CAT6A patch panels within the Data Center. Run CAT6A cables in overhead cable ladders and terminate to CAT6A patch panels.
- 3.4.1.3 Terminate all CAT6A cables IAW the T568B wiring standard. Test installed CAT6A cables IAW ANSI/TIA-568-C.1 and ANSI/TIA-568-C.2. Provide both soft copy and hard copy of test results.
- 3.4.1.4 Install, terminate, test, and troubleshoot CAT3 cables between CAT3 patch panels within the Data Center. Run CAT3 cables in overhead cable ladders and terminate to CAT3 patch panels.
- 3.4.1.5 Terminate all CAT3 cables IAW the T568B wiring standard. Test installed CAT3 cables IAW ANSI/TIA-568-C.1. Provide both soft copy and hard copy of test results.
- 3.4.1.6 Install, terminate, test, and troubleshoot laser optimized multi-mode fiber (LOMMF) optic cables and single-mode fiber (SMF) optic cables between fiber distribution panels (FDP) within the Data Center. Run fibers in overhead cable ladders and terminate to FDP.
- 3.4.1.7 Terminate above fiber cables using LC type connectors. Test installed fiber optic cable IAW ANSI/TIA-568-C.3. Provide both soft copy and hard copy of test results.
- 3.4.1.8 Ground all patch panels with #6 AWG ground wire.
- 3.4.1.9 Label all cables and patch panels IAW the IDP and TIA-606-A.

### 3.4.2 (b)(7)(e) Horizontal Cabling Installation - Main Facility Building 175, 176, A, Ford Island, HI:

- 3.4.2.1 Install, terminate, test, and troubleshoot CAT6A, CAT3, and fiber horizontal cabling IAW the IDP in Ref 2.2.1.
- 3.4.2.2 Install, terminate, test, and troubleshoot CAT6A cables between CAT6A patch panels within the Data Center. Run CAT6A cables in overhead cable ladders and terminate to CAT6A patch panels.
- 3.4.2.3 Install, terminate, test, and troubleshoot CAT3 cables from designated CAT3 patch panels within Data Center IAW the IDP.
- 3.4.2.4 Install, terminate, test, and troubleshoot LOMMF optic cables from designated FDP within Data Center IAW the IDP.
- 3.4.2.5 Terminate all CAT6A cables IAW the T568B wiring standard. Test installed CAT6A cables IAW ANSI/TIA-568-C.1 and ANSI/TIA-568-C.2. Provide both soft copy and hard copy of test results.
- 3.4.2.6 Terminate all CAT3 cables IAW the T568B wiring standard. Test installed CAT3 cables IAW ANSI/TIA-568-C. Provide both soft copy and hard copy of test results.
- 3.4.2.7 Test installed fiber optic cable IAW ANSI/TIA-568-C.3. Provide both soft copy and hard copy of test results.
- 3.4.2.8 Ground all patch panels with #6 AWG ground wire.
- 3.4.2.9 Label all cables, patch panels and data outlets IAW the IDP.

### 3.4.3 Infrastructure Cabling Installation Schedule:

- 3.4.3.1 Installation of cabling infrastructure in the Data Center shall be sequenced to support follow-on Network equipment installation. Completion of the cabling infrastructure, including SOVT for Data Center Row AM, Row AM to Row BB, and Row BB, is required for Network equipment installation.
- 3.4.3.2 Installation of all cabling infrastructure shall be completed by 31 Aug 2013. If further scheduling is needed, cabling not mission critical shall be completed no later than 31 Dec 2013.
- 3.4.3.3 Notional schedule provided in Ref 2.2.2.

## 3.5 Network

- 3.5.1 Rack mount and physically secure 20 network servers IAW the IDP in Ref 2.2.1.
- 3.5.2 Install wall mounts for 110 WAPs IAW the IDP.
- 3.5.3 Deploy and test WAPs for connectivity IAW the IDP. Test connectivity from a DHCP configured laptop to a webpage after connecting to each WAP
- 3.5.4 Rack mount, cable and physically secure 150 routers, switches and firewalls s IAW the IDP.
- 3.5.5 Perform testing and checkout of cables, connection verification, and execute corrective actions IAW the IDP.
- 3.5.6 Patch and dress cables for all network devices to network and cable plant infrastructure IAW the IDP.
- 3.5.7 Label all cables and devices IAW the IDP.
- 3.5.8 Test connectivity to a web page from a laptop connected to 800 VoIP phone ports on the network

## 3.6 VoIP

- 3.6.1** Rack mount and physically secure VoIP servers, gateways, and routers IAW the IDP in Ref 2.2.1.
- 3.6.2** Install wall mounts for phones IAW the IDP.
- 3.6.3** Deploy IP, conference, and analog phones IAW the IDP.
- 3.6.4** Install extension microphones and button modules to VoIP phones.
- 3.6.5** Configure VoIP system with end user information, line appearances, dialing plan, phone set button configurations, voice mail and any additional features identified during the line office data calls.
- 3.6.6** Perform testing and checkout of cables, connection verification, and execute corrective actions.
- 3.6.7** Conduct testing of VoIP system in support of transitioning system.
- 3.6.8** Patch and dress cables for all VoIP devices to network and cable plant infrastructure IAW the IDP.
- 3.6.9** Label all cables and devices IAW the IDP.

### **3.7 AV/VTC**

#### **3.7.1 Conference Room 1192 (AV/VTC):**

- 3.7.1.1** Install under floor raceways from the credenza to the conference table and monitors.
- 3.7.1.2** Install in-wall and under floor raceways from the credenza to the ceiling speakers and ceiling microphones.
- 3.7.1.3** Install and secure AV equipment rack in the credenza.
- 3.7.1.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.1.5** Install ceiling microphone and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.1.6** Install a digital media transmitter and associated cabling at the conference table location. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.1.7** Install touch panel controller and associated cabling at the conference table. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.1.8** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.1.9** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.1.10** Install and mount two large screen flat panel monitors and associated cabling. Install, label and test all cabling.
- 3.7.1.11** Install and mount VTC camera and associated cabling between the two flat panel monitors. Install, label and test all cabling.
- 3.7.1.12** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.1.13** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

#### **3.7.2 Conference Room 1198 (Display Only):**

- 3.7.2.1** Install under floor raceways from the monitors to the conference table.
- 3.7.2.2** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation.
- 3.7.2.3** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.2.4** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.2.5** Install and mount two large screen flat panel monitors and associated cabling. Terminate, label and test all cables.
- 3.7.2.6** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

#### **3.7.3 Classroom 1377 (AV/VTC-Projector):**

- 3.7.3.1** Install under floor raceways from the equipment cabinet to the conference table.
- 3.7.3.2** Install in-wall and under floor raceways from the equipment cabinet to the ceiling projector, ceiling speakers and ceiling microphones.
- 3.7.3.3** Install AV equipment cabinet in room.

- 3.7.3.4** Install and mount AV equipment in the equipment cabinet. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.3.5** Install ceiling microphones and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.3.6** Install and mount ceiling projector, projector screen and associated cabling. Install, terminate, label and test all cabling.
- 3.7.3.7** Install touch panel controller, digital media transmitter and associated cabling at the podium. Install, label and test all cabling.
- 3.7.3.8** Install and mount a digital scaler and associated cabling at the ceiling projector location. Install, label and test all cabling.
- 3.7.3.9** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.3.10** Install and mount VTC cameras and associated cabling on the west and east walls. Install, label and test all cabling.
- 3.7.3.11** Run all peripheral equipment cables to the AV equipment cabinet. Terminate, label and test all cables.
- 3.7.3.12** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.4** Media Briefing Studio 1402 (AV Only):
  - 3.7.4.1** Install under floor raceways from the equipment cabinet in Media Workroom and Storage (room 1436) to the monitors.
  - 3.7.4.2** Install in-wall and under floor raceways from the equipment cabinet in Media Workroom and Storage (room 1436) to the ceiling speakers and ceiling microphones.
  - 3.7.4.3** Install ceiling speakers and ceiling microphones. Install, terminate, label and test all associated audio cabling.
  - 3.7.4.4** Install touch panel controller, digital media transmitter and associated cabling at the podium. Install, label and test all cabling. Exact location will be provided at time of installation.
  - 3.7.4.5** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors on the west wall.
  - 3.7.4.6** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
  - 3.7.4.7** Install and mount two large screen flat panel monitors and associated cabling. Install, label and test all cabling.
  - 3.7.4.8** Run all peripheral equipment cables to the AV equipment cabinet in Media Workroom and Storage (room 1436). Terminate, label and test all cables.
  - 3.7.4.9** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.5** Media Workroom and Storage 1436:
  - 3.7.5.1** Install AV equipment cabinet in room.
  - 3.7.5.2** Install and mount AV equipment in the equipment cabinet. Install, terminate, label and test all interconnecting AV equipment cables.
  - 3.7.5.3** Install a microphone. Install, terminate, label and test all associated audio cabling. Exact location will be provided at time of installation.
  - 3.7.5.4** Install audio amplifier and speakers. Install, terminate, label and test all associated audio cabling. Exact location will be provided at time of installation.
  - 3.7.5.5** Install touch panel controller, digital media transmitter and associated cabling. Install, label and test all cabling. Exact location will be provided at time of installation.
  - 3.7.5.6** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.6** Conference Room 1564 (AV/VTC-Projector):
  - 3.7.6.1** Install under floor raceways from the built-in cabinet to the conference table and monitors.
  - 3.7.6.2** Install in-wall and under floor raceways from the built-in cabinet to the ceiling projector, ceiling speakers and ceiling microphones.
  - 3.7.6.3** Install and secure AV equipment rack in the built-in cabinet.
  - 3.7.6.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.

- 3.7.6.5** Install ceiling microphones and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.6.6** Install and mount ceiling projector, projector screen and associated cabling. Install, terminate, label and test all cabling.
- 3.7.6.7** Install touch panel controller, four digital media transmitter and associated cabling at the conference table. Install, label and test all cabling. Exact location will be provided at time of installation.
- 3.7.6.8** Install one digital media transmitter and associated cabling in the podium. Install, label and test all cabling. Exact location will be provided at time of installation.
- 3.7.6.9** Install and mount a digital scaler and associated cabling at the ceiling projector location. Install, label and test all cabling.
- 3.7.6.10** Install one digital scaler and associated cabling in the area where the unit will be located behind the west wall-mounted flat panel monitor on the east wall.
- 3.7.6.11** Install one digital scaler and associated cabling in the area where the unit will be located behind the west wall-mounted flat panel monitor on the north wall.
- 3.7.6.12** Install one digital scaler and associated cabling in the area where the unit will be located behind the west wall-mounted flat panel monitor on the south wall.
- 3.7.6.13** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.6.14** Install and mount one large screen flat panel monitor and associated cabling on the east wall.
- 3.7.6.15** Install and mount one large screen flat panel monitor and associated cabling on the north wall.
- 3.7.6.16** Install and mount one large screen flat panel monitor and associated cabling on the south wall.
- 3.7.6.17** Install and mount VTC camera and associated cabling on the east wall. Install, label and test all cabling.
- 3.7.6.18** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.6.19** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.7** AV Room 1566:
  - 3.7.7.1** Install AV equipment cabinet.
  - 3.7.7.2** Install and mount AV equipment in the equipment cabinet. Install, terminate, label and test all interconnecting AV equipment cables.
  - 3.7.7.3** Install a power raceway, cabling and outlet for the equipment cabinet. Exact location will be provided at time of installation
  - 3.7.7.4** Install a microphone. Install, terminate, label and test all associated audio cabling. Exact location will be provided at time of installation.
  - 3.7.7.5** Install audio amplifier and speakers. Install, terminate, label and test all associated audio cabling. Exact location will be provided at time of installation.
  - 3.7.7.6** Install touch panel controller and associated cabling at the conference table. Install, label and test all cabling. Exact location will be provided at time of installation.
  - 3.7.7.7** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.8** Auditorium 1567 (AV/VTC-Projector):
  - 3.7.8.2** Install above ceiling raceways from the equipment cabinet in room 1566 to the ceiling projector, ceiling speakers and ceiling microphones.
  - 3.7.8.3** Install and mount two wireless microphone receivers on the north wall. Exact location will be provided at time of installation. Install, terminate, label and test all associated audio cabling.
  - 3.7.8.4** Install ceiling speakers. Install, terminate, label and test all associated audio cabling.
  - 3.7.8.5** Install and mount ceiling projector, projector screen and associated cabling. Install, terminate, label and test all cabling.
  - 3.7.8.6** Install touch panel controller, digital media transmitter and associated control cabling in the podium. Exact location will be provided at time of installation. Install, terminate, label and test all cabling.
  - 3.7.8.7** Install seven digital media transmitter and associated cabling in the floor mounted outlet boxes. Exact locations to be provided at time of installation. Install, terminate, label and test all cabling.
  - 3.7.8.8** Install and mount a digital scaler and associated cabling at the ceiling projector location. Install, label and test all cabling.
  - 3.7.8.9** Install one digital scaler and associated cabling in the area where the unit will be located behind the west wall-mounted flat panel monitor on the west wall.



- 3.7.8.10** Install one digital scaler and associated cabling in the area where the unit will be located behind the west wall-mounted flat panel monitor on the east wall.
- 3.7.8.11** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.8.12** Install and mount one large screen flat panel monitor and associated cabling on the west wall.
- 3.7.8.13** Install and mount one large screen flat panel monitor and associated cabling on the east wall.
- 3.7.8.14** Install and mount one VTC camera and associated cabling on the east wall. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.8.15** Install and mount one VTC camera and associated cabling on the south wall. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.8.16** Install and mount two VTC cameras and associated cabling on the north wall. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.8.17** Install subwoofer speakers under the stage. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.8.18** Run all peripheral equipment cables to the AV equipment cabinet in room 1566. Terminate, label and test all cables.
- 3.7.8.19** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.9 Computer Training Lab 1651 (AV/VTC):**
  - 3.7.9.1** Install under floor raceways from the built-in cabinet to the monitors.
  - 3.7.9.2** Install in-wall and under floor raceways from the built-in cabinet to the ceiling speakers and ceiling microphones.
  - 3.7.9.3** Install and secure AV equipment rack in the built-in cabinet.
  - 3.7.9.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
  - 3.7.9.5** Install ceiling microphone and ceiling speakers. Install, terminate, label and test all associated audio cabling.
  - 3.7.9.6** Install one digital media transmitter and associated cabling in the floor mounted outlet box. Exact locations to be provided at time of installation. Install, terminate, label and test all cabling.
  - 3.7.9.7** Install and mount large screen flat panel monitors and associated cabling. Install, label and test all cabling.
  - 3.7.9.8** Install and mount a digital scaler and associated cabling at the monitor location. Install, label and test all cabling.
  - 3.7.9.9** Install touch panel controller, digital media transmitter and associated cabling at the podium. Exact location will be provided at time of installation. Install, label and test all cabling.
  - 3.7.9.10** Install one digital scaler and associated cabling in the area where the unit will be located behind the west wall-mounted flat panel monitor on the west wall. Exact location will be provided at time of installation. Install, label and test all cabling.
  - 3.7.9.11** Install two digital scalers and associated cabling in the area where the units will be located behind the wall-mounted flat panel monitors on the east wall.
  - 3.7.9.12** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
  - 3.7.9.13** Install and mount two large screen flat panel monitors and associated cabling on the east wall. Install, label and test all cabling.
  - 3.7.9.14** Install and mount one large screen flat panel monitor and associated cabling on the west wall. Install, label and test all cabling.
  - 3.7.9.15** Install and mount VTC camera and associated cabling between the two flat panel monitors. Install, label and test all cabling.
  - 3.7.9.16** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
  - 3.7.9.17** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.10 Training Room 1653 (AV/VTC):**
  - 3.7.10.1** Install under floor raceways from the built-in cabinet to the monitors.
  - 3.7.10.2** Install in-wall and under floor raceways from the built-in cabinet to the ceiling speakers and ceiling microphones.
  - 3.7.10.3** Install and secure AV equipment rack in the built-in cabinet.

- 3.7.10.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.10.5** Install ceiling microphone and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.10.6** Install one digital media transmitter and associated cabling in the floor mounted outlet box. Exact locations will be provided at time of installation. Install, terminate, label and test all cabling.
- 3.7.10.7** Install and mount large screen flat panel monitors and associated cabling. Install, label and test all cabling.
- 3.7.10.8** Install and mount a digital scaler and associated cabling at the monitor location. Install, label and test all cabling.
- 3.7.10.9** Install touch panel controller, digital media transmitter and associated cabling at the podium. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.10.10** Install two digital scalars in the area where the units will be located behind the wall-mounted flat panel monitors on the east wall.
- 3.7.10.11** Install one digital scaler and associated cabling in the area where the unit will be located behind the west wall-mounted flat panel monitor on the west wall.
- 3.7.10.12** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.10.13** Install and mount two large screen flat panel monitors and associated cabling on the east wall. Install, label and test all cabling.
- 3.7.10.14** Install and mount one large screen flat panel monitor and associated cabling on the west wall. Install, label and test all cabling.
- 3.7.10.15** Install and mount VTC camera and associated cabling between the two flat panel monitors. Install, label and test all cabling.
- 3.7.10.16** Install and mount VTC camera and associated cabling on the west wall. Install, label and test all cabling.
- 3.7.10.17** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.10.18** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.11 Conference Room 1761 (AV Only):**

- 3.7.11.1** Install under floor raceways from the credenza to the conference table and monitors.
- 3.7.11.2** Install in-wall and under floor raceways from the credenza to the ceiling speakers.
- 3.7.11.3** Install and secure AV equipment rack in the credenza.
- 3.7.11.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.11.5** Install ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.11.6** Install a digital media transmitter and associated cabling at the conference table location. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.11.7** Install touch panel controller and associated cabling at the conference table. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.11.8** Install two digital scalars in the area where the units will be located behind the wall-mounted flat panel monitors on the west wall.
- 3.7.11.9** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.11.10** Install and mount two large screen flat panel monitors and associated cabling. Install, label and test all cabling.
- 3.7.11.11** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.11.12** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.12 Conference Room 1823 (AV/VTC):**

- 3.7.12.1** Install under floor raceways from the credenza to the conference table and monitors.
- 3.7.12.2** Install in-wall and under floor raceways from the credenza to the ceiling speakers and ceiling microphones.
- 3.7.12.3** Install and secure AV equipment rack in the credenza.
- 3.7.12.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.

- 3.7.12.5** Install ceiling microphone and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.12.6** Install a digital media transmitter and associated cabling at the conference table location. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.12.7** Install touch panel controller and associated cabling at the conference table. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.12.8** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors on the east wall.
- 3.7.12.9** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.12.10** Install and mount two large screen flat panel monitors and associated cabling. Install, label and test all cabling.
- 3.7.12.11** Install and mount VTC camera and associated cabling between the two flat panel monitors. Install, label and test all cabling.
- 3.7.12.12** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.12.13** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.13** Conference Room 1893 (AV Only):

- 3.7.13.1** Install under floor raceways from the credenza to the conference table and monitors.
- 3.7.13.2** Install in-wall and under floor raceways from the credenza to the ceiling speakers.
- 3.7.13.3** Install and secure AV equipment rack in the credenza.
- 3.7.13.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.13.5** Install ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.13.6** Install a digital media transmitter and associated cabling at the conference table location. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.13.7** Install touch panel controller and associated cabling at the conference table. Exact location will be provided at time of installation. Install, label and test all cabling.
- 3.7.13.8** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.13.9** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.13.10** Install and mount two large screen flat panel monitors and associated cabling. Install, label and test all cabling.
- 3.7.13.11** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.13.12** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.14** Conference Room 2192 (Display Only):

- 3.7.14.1** Install under floor raceways from the conference table to the monitors.
- 3.7.14.2** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation.
- 3.7.14.3** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.14.4** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.14.5** Install and mount two large screen flat panel monitors and associated cabling. Terminate, label and test all cables.
- 3.7.14.6** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.15** Conference Room 2198 (Display Only):

- 3.7.15.1** Install under floor raceways from the conference table to the monitors.
- 3.7.15.2** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation.
- 3.7.15.3** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.15.4** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.

- 3.7.15.5** Install and mount two large screen flat panel monitors and associated cabling. Terminate, label and test all cables.
- 3.7.15.6** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.16** Conference Room 2410 (Display Only-Projector):

- 3.7.16.1** Install in-wall and under floor raceways from the conference table to the ceiling projector.
- 3.7.16.2** Install in-wall and under floor raceways from the built-in cabinet to the ceiling speakers.
- 3.7.16.3** Install and secure AV equipment rack in the built-in cabinet.
- 3.7.16.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.16.5** Install and mount ceiling speakers, ceiling projector, projector screen and associated cabling. Install, terminate, label and test all cabling.
- 3.7.16.6** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation.
- 3.7.16.7** Install and mount a digital scaler and associated cabling at the ceiling projector location. Install, label and test all cabling.
- 3.7.16.8** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.16.9** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.16.10** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.17** Conference Room 2442 (AV/VTC):

- 3.7.17.1** Install under floor raceways from the built-in cabinet to the conference table and monitors.
- 3.7.17.2** Install in-wall and under floor raceways from the built-in cabinet to the ceiling speakers and ceiling microphones.
- 3.7.17.3** Install and secure AV equipment rack in the built-in cabinet.
- 3.7.17.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.17.5** Install ceiling microphones and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.17.6** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation. Install, terminate, label and test all cabling.
- 3.7.17.7** Install touch panel controller and associated cabling at the conference table. Exact location will be provided at time of installation. Install, terminate, label and test all cabling.
- 3.7.17.8** Install two digital scalers in the area where the units will be located behind the wall-mounted flat panel monitors on the west wall.
- 3.7.17.9** Install one digital scaler in the area where the unit will be located behind the wall-mounted flat panel monitor on the south wall.
- 3.7.17.10** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalers.
- 3.7.17.11** Install and mount two large screen flat panel monitors and associated cabling on the west wall. Install, label and test all cabling.
- 3.7.17.12** Install and mount one large screen flat panel monitor and associated cabling on the south wall. Install, label and test all cabling.
- 3.7.17.13** Install and mount VTC camera and associated cabling between the two flat panel monitors. Install, label and test all cabling.
- 3.7.17.14** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.17.15** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.18** Conference Room 2545 (AV/VTC-Projector):

- 3.7.18.1** Install under floor raceways from the built-in cabinet to the conference table.
- 3.7.18.2** Install in-wall and under floor raceways from the built-in cabinet to the ceiling projector, ceiling speakers and ceiling microphones.
- 3.7.18.3** Install and secure AV equipment rack in the built-in cabinet.

- 3.7.18.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.18.5** Install ceiling microphones and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.18.6** Install and mount ceiling projector, projector screen and associated cabling. Install, terminate, label and test all cabling.
- 3.7.18.7** Install touch panel controller, digital media transmitter and associated cabling at the conference table. Install, label and test all cabling. Exact location will be provided at time of installation.
- 3.7.18.8** Install and mount a digital scaler and associated cabling at the ceiling projector location. Install, label and test all cabling.
- 3.7.18.9** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.18.10** Install signal cable raceway and power outlet for VTC camera on the east wall. Exact location will be provided at time of installation.
- 3.7.18.11** Install and mount VTC camera and associated cabling. Install, label and test all cabling.
- 3.7.18.12** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.18.13** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.19** Conference Room 2761 (Display Only):

- 3.7.19.1** Install under floor raceways from the conference table to the monitors.
- 3.7.19.2** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation.
- 3.7.19.3** Install two digital scalars in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.19.4** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.19.5** Install and mount two large screen flat panel monitors and associated cabling. Terminate, label and test all cables.
- 3.7.19.6** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.20** Conference Room 2823 (Display Only):

- 3.7.20.1** Install Install under floor raceways from the conference table to the monitors.
- 3.7.20.2** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation.
- 3.7.20.3** Install two digital scalars in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.20.4** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.20.5** Install and mount two large screen flat panel monitors and associated cabling. Terminate, label and test all cables.
- 3.7.20.6** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.21** Conference Room 2893 (Display Only):

- 3.7.21.1** Install Install under floor raceways from the conference table to the monitors.
- 3.7.21.2** Install two digital media transmitters at the conference table location. Exact location will be provided at time of installation.
- 3.7.21.3** Install two digital scalars in the area where the units will be located behind the wall-mounted flat panel monitors.
- 3.7.21.4** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.21.5** Install and mount two large screen flat panel monitors and associated cabling. Terminate, label and test all cables.
- 3.7.21.6** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.22** Ready Room 3366 (AV Only):

- 3.7.22.1** Install under floor raceways from the built-in cabinet to the conference table and monitors.

- 3.7.22.2** Install in-wall and under floor raceways from the equipment built-in cabinet to the ceiling speakers.
- 3.7.22.3** Install and secure AV equipment rack in the built-in cabinet.
- 3.7.22.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.22.5** Install ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.22.6** Install touch panel controller, digital media transmitter and associated cabling at the conference table. Install, label and test all cabling. Exact location will be provided at time of installation.
- 3.7.22.7** Install two digital scalars in the area where the units will be located behind the wall-mounted flat panel monitors on the west wall.
- 3.7.22.8** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.22.9** Install and mount two large screen flat panel monitors and associated cabling. Install, label and test all cabling.
- 3.7.22.10** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.22.11** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.23** Conference Room 3528 (AV/VTC-Projector):
- 3.7.23.1** Install under floor raceways from the credenza to the conference table.
- 3.7.23.2** Install in-wall and under floor raceways from the credenza to the ceiling projector, ceiling speakers and ceiling microphones.
- 3.7.23.3** Install and secure AV equipment rack in the credenza.
- 3.7.23.4** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.23.5** Install ceiling microphones and ceiling speakers. Install, terminate, label and test all associated audio cabling.
- 3.7.23.6** Install and mount ceiling projector, projector screen and associated cabling. Install, terminate, label and test all cabling.
- 3.7.23.7** Install touch panel controller, digital media transmitter and associated cabling at the conference table. Install, label and test all cabling. Exact location will be provided at time of installation.
- 3.7.23.8** Install and mount a digital scalar and associated cabling at the ceiling projector location. Install, label and test all cabling.
- 3.7.23.9** Install, terminate, label and test DigitalMedia cable between the digital media transmitters and scalars.
- 3.7.23.10** Install signal cable raceway and power outlet for VTC camera on the east wall. Exact location will be provided at time of installation.
- 3.7.23.11** Install and mount VTC camera and associated cabling. Install, label and test all cabling.
- 3.7.23.12** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.23.13** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.
  
- 3.7.24** PTWC Operations Center Room 3574 (AV Only):
- 3.7.24.1** Install under floor raceways between the equipment cabinets.
- 3.7.24.2** Install under floor raceways from the existing cable tray outside the PTWC Operations Center (room 3574) to the equipment cabinet in the PTWC Operations Center (room 3574).
- 3.7.24.3** Install fiber cabling from the Data Center (room 3396) to the PTWC Operations Center (room 3574).
- 3.7.24.4** Install AV equipment cabinets.
- 3.7.24.5** Install a power raceway, cabling and outlet for the equipment cabinet. Exact location will be provided at time of installation.
- 3.7.24.6** Install and mount AV equipment in the equipment racks. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.24.7** Install and mount six large screen flat panel monitors and associated cabling.
- 3.7.24.8** Install CATV tuner boxes IAW the Community Access Television (CATV) Section in this Performance Work Statement.
- 3.7.24.9** Run all peripheral equipment cables to the AV equipment rack. Terminate, label and test all cables.
- 3.7.24.10** Install, terminate, test, label and troubleshoot LOMMF optic cable between the PTWC Operations Center (room 3574) and Data Center (room 3396). Terminate fiber cable to FDP using LC type connectors.

Test installed fiber optic cable IAW ANSI/TIA-568-C.3. Provide both soft copy and hard copy of test results.

- 3.7.24.11** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.25** PTWC On-Call Room 3636 (CATV):

- 3.7.25.1** Install and mount a flat panel monitor and associated cabling.
- 3.7.25.2** Install CATV tuner box IAW the Community Access Television (CATV) Section in this Performance Work Statement.
- 3.7.25.3** Provide incidental work IAW the Community Access Television (CATV) Section in this Performance Work Statement.
- 3.7.25.4** Run all peripheral equipment cables to the CATV tuner box. Terminate, label and test all cables.
- 3.7.25.5** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.26** PTWC On-Call Room 3653 (CATV):

- 3.7.26.1** Install and mount a flat panel monitor and associated cabling.
- 3.7.26.2** Install CATV tuner box IAW the Community Access Television (CATV) Section in this Performance Work Statement.
- 3.7.26.3** Provide incidental work IAW the Community Access Television (CATV) Section in this Performance Work Statement.
- 3.7.26.4** Run all peripheral equipment cables to the CATV tuner box. Terminate, label and test all cables.
- 3.7.26.5** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.27** PTWC On-Call Room 3670 (CATV):

- 3.7.27.1** Install and mount a flat panel monitor and associated cabling.
- 3.7.27.2** Install CATV tuner box IAW the Community Access Television (CATV) Section in this Performance Work Statement.
- 3.7.27.3** Provide incidental work IAW the Community Access Television (CATV) Section in this Performance Work Statement.
- 3.7.27.4** Run all peripheral equipment cables to the CATV tuner box. Terminate, label and test all cables.
- 3.7.27.5** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.28** Data Center 3396:

- 3.7.28.1** Install and mount AV equipment in the equipment rack. Install, terminate, label and test all interconnecting AV equipment cables.
- 3.7.28.2** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.7.29** VTC Carts:

- 3.7.29.1** Install and mount VTC equipment in the equipment cart. Install, terminate, label and test all interconnecting VTC equipment cables.
- 3.7.29.2** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables as necessary.

**3.8** Community Access Television (CATV)

- 3.8.1** Install two separate coaxial cable infrastructures at the (b)(7)(e) to support satellite and terrestrial CATV service IAW the IDP in Ref 2.2.1.

**3.8.2** Satellite CATV Service:

- 3.8.2.1** Install, terminate, label and test four coaxial trunk cables in existing cable tray from the rooftop satellite dish pedestal to Telecommunications Room (TR) on the rooftop by means of the antenna entry plate.

- Perform weatherization of all exposed components including but not limited to cables, connectors, mounting hardware, and electrical connections.
- 3.8.2.2** Install, terminate, label and test four coaxial trunk cables in the existing raceways from the TR on the rooftop to the Data Center (room 3396) on the third floor.
  - 3.8.2.3** Install and mount CATV equipment on the existing backboard wall in the Data Center (room 3396). Install, terminate, label and test all interconnecting CATV equipment cables. Install a power raceway, cabling and outlet for CATV equipment. Exact locations will be provided at time of installation.
  - 3.8.2.4** Install and mount CATV equipment in the AV equipment rack in the Data Center (room 3396). Install, terminate, label and test all interconnecting CATV equipment cables.
  - 3.8.2.5** Install, terminate, label and test coaxial cabling from CATV equipment mounted on the wall in Data Center (room 3396) to CATV equipment in the AV equipment rack.
  - 3.8.2.6** Install and mount CATV equipment on existing backboard walls in TRs (1145, 1264, 1383, 1536, 1723, 1944, 2145, 2265, 2383, 2536, 2740, 2943, and 3536) and Exhibit Server (room 1541). Install, terminate, label and test all interconnecting CATV equipment cables.
  - 3.8.2.7** Install fiber patch cables from the AV equipment rack fiber patch panel, to the inter-cabinet fiber distribution patch panel, and to the inter-room fiber distribution patch panel in the Data Center (room 3396). Label and test all interconnecting fiber cables.
  - 3.8.2.8** Install fiber patch cables from the inter-room fiber distribution patch panel in the Data Center (room 3396) to the respective fiber patch panels for TRs (1145, 1264, 1383, 1536, 1723, 1944, 2145, 2265, 2383, 2536, 2740, 2943, and 3536) and Exhibit Server (room 1541). Label and test all interconnecting fiber cables.
  - 3.8.2.9** Install fiber patch cables from the fiber patch panel in each of the TRs and Exhibit Server (room 1541) to the respective CATV equipment mounted on the wall in each room. Label and test all interconnecting fiber cables.
  - 3.8.2.10** Install CATV outlets in Control Center (room 3574), Conference (room 2192), Office (room 2340), Exhibit Server (room 1541), Dining (room 1510), Exercise (room 1542), Office (room 1851), Office (room 1902) and Conference (room 1954). Install, terminate, label and test all interconnecting CATV equipment cables and jacks.
  - 3.8.2.11** Install, terminate, label and test coaxial drop cables and under floor raceways from TR (room 3536) to Control Center (room 3574). Terminate coaxial cable to cable splitter from TR (room 3536) and to the CATV outlet in the Control Center (room 3574).
  - 3.8.2.12** Install, terminate, label and test coaxial drop cables and under floor raceways from TR (room 2265) to Conference (room 2192) and Office (room 2340). Terminate coaxial cables to cable splitter from TR (room 2265) and to the CATV outlets in the Conference (room 2192) and Office (room 2340).
  - 3.8.2.13** Install, terminate, label and test coaxial drop cables and under floor raceways from the Exhibit Server (room 1541) to Dining (room 1510), and Exercise (room 1542). Terminate coaxial cables to cable splitter from Exhibit Server (room 1541) and to the CATV outlets in the Exhibit Server (room 1541), Dining (room 1510), and Exercise (room 1542).
  - 3.8.2.14** Install, terminate, label and test coaxial drop cables and under floor raceways from TR (room 1944) to Office (room 1851), Office (room 1902) and Conference (room 1954). Terminate coaxial cables to cable splitter from TR (room 1944) and to the CATV outlets in the Office (room 1851), Office (room 1902) and Conference (room 1954).
  - 3.8.2.15** Install a power raceway, cabling and outlet for the monitors and CATV tuner boxes in Control Center (room 3574), Conference (room 2192), Office (room 2340), Exhibit Server (room 1541), Dining (room 1510), Exercise (room 1542), Office (room 1851), Office (room 1902) and Conference (room 1954). Exact location will be provided at time of installation.
  - 3.8.2.16** Test and verify CATV and audio/video connectivity at all outlet locations.
  - 3.8.2.17** Install, terminate, label and test coaxial cables from the CATV outlets to the respective CATV tuner boxes.
  - 3.8.2.18** Install, terminate, label and test coaxial and audio/video cables from the CATV tuner boxes to the respective flat panel monitors.
  - 3.8.2.19** Install, terminate, test, label and troubleshoot fiber cable. Test installed fiber cable IAW ANSI/TIA-568-C.3. Provide both soft copy and hard copy of test results.
  - 3.8.2.20** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables or connectors as necessary.



### **3.8.3 Terrestrial CATV Service:**

- 3.8.3.1** Install, terminate, label and test coaxial trunk cabling in existing under floor raceway from the Main Point of Entry (MPOE) on the first floor to the Data Center (room 3396) on the third floor by way of TR (room 1383), TR (room 2383) and Radio Room (room 3386).
- 3.8.3.2** Install and mount CATV equipment on the existing backboard wall in the Data Center (room 3396). Install, terminate, label and test all interconnecting CATV equipment cables. Install a power raceway, cabling and outlet for CATV equipment. Exact locations will be provided at time of installation.
- 3.8.3.3** Install and mount CATV equipment in the AV equipment rack in the Data Center (room 3396). Install, terminate, label and test all interconnecting CATV equipment cables.
- 3.8.3.4** Install, terminate, label and test coaxial cabling from CATV equipment mounted on the wall in Data Center (room 3396) to CATV equipment in the AV equipment rack.
- 3.8.3.5** Install and mount CATV equipment on existing backboard wall in TR (room 3536). Install, terminate, label and test all interconnecting CATV equipment cables.
- 3.8.3.6** Install fiber patch cables from the AV equipment rack fiber patch panel, to the inter-cabinet fiber distribution patch panel, and to the inter-room fiber distribution patch panel in the Data Center (room 3396). Label and test all interconnecting fiber cables.
- 3.8.3.7** Install fiber patch cables from the inter-room fiber distribution patch panel in the Data Center (room 3396) to the fiber patch panel for TR (room 3536). Label and test all interconnecting fiber cables.
- 3.8.3.8** Install fiber patch cables from the fiber patch panel in TR (room 3536) to the CATV equipment mounted on the wall. Label and test all interconnecting fiber cables.
- 3.8.3.9** Install CATV outlets in Control Center (room 3574), On-Call (room 3636), On-Call (room 3653), and On-Call (room 3670). Install, terminate, label and test all interconnecting CATV equipment cables and jacks.
- 3.8.3.10** Install, terminate, label and test coaxial cable from TR (room 3536) to Control Center (room 3574), On-Call (room 3636), On-Call (room 3653), and On-Call (room 3670). Terminate coaxial cable to cable splitter from TR (room 3536) and to the CATV outlets in the Control Center (room 3574), On-Call (room 3636), On-Call (room 3653), and On-Call (room 3670).
- 3.8.3.11** Install a power raceway, cabling and outlet for the monitors and CATV tuner boxes in On-Call (room 3636), On-Call (room 3653), and On-Call (room 3670). Exact location will be provided at time of installation.
- 3.8.3.12** Test and verify CATV and audio/video connectivity at all outlet locations.
- 3.8.3.13** Install, terminate, label and test coaxial cables from the CATV outlets to the respective CATV tuner boxes.
- 3.8.3.14** Install, terminate, label and test coaxial and audio/video cables from the CATV tuner boxes to the respective flat panel monitors.
- 3.8.3.15** Install, terminate, test, label and troubleshoot fiber cable. Test installed fiber cable IAW ANSI/TIA-568-C.3. Provide both soft copy and hard copy of test results.
- 3.8.3.16** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables or connectors as necessary.

### **3.9 RF Systems**

- 3.9.1** Install all antennas and interior electronic equipment IAW the IDP in Ref 2.2.1.
- 3.9.1.1** For the AWIPS system, install an equipment enclosure and terminate the OSP fiber optic cables at the on-grade concrete antenna pad located on the northeast side of Building 175. Exact location and orientation of enclosure will be provided at time of installation.
- 3.9.1.2** For the (b)(7)(e), install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.3** For the IRIS VSAT system, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.4** For the EMWIN system, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.5** For the HIPS/TIROS system, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.6** For the OPSNet VSAT system, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.

- 3.9.1.7** For the CD MSAT system, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.8** For the Iridium systems, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.9** For the GPS systems, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.10** For the DCP Test and UHF Beacon systems, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.11** For the PRH HF system, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room.
- 3.9.1.12** For the VMS systems, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room and OLE VMS room.
- 3.9.1.13** For the PIRO HF system, install the antenna on the rooftop and all required cabling between the antenna and rooftop equipment room and PIRO office.
- 3.9.1.13** Install five (5) Cat-6A cables between Row AS in the Data Center and five (5) second floor offices (2564, 2565, 2581, 2582, 2599) and terminate to an outlet in each office.
- 3.9.1.14** Install five (5) Cat-6A cables between Row AS in the Data Center and AWIPS/ROC Workroom (3432) and terminate to outlets.
- 3.9.1.15** Perform weatherization of all exposed components including but not limited to cables, connectors, mounting hardware, and electrical connections.
- 3.9.1.16** Fabricate antenna supports, brackets, and adapters as required for installing antennas on construction provided rooftop antenna mounts. Exact details to be determined upon completion of building construction.
- 3.9.1.17** Install all cables in accordance with manufacturers' specifications.
- 3.9.1.18** Ground all antennas and electronic equipment IAW all relevant reference documents.
- 3.9.1.19** Install lightning arrestors to protect all rooftop antennas and integrate with the facility's lightning protection system.
- 3.9.1.20** Perform testing and checkout of cables and repair and/or replace cables as necessary.
- 3.9.1.21** Provide support during SOVT which includes identifying and locating cables, performing continuity checks, and rewiring or replacing cables or connectors as necessary.
- 3.9.1.22** Patch and neatly dress cables.
- 3.9.1.22** Label all cables and devices IAW the IDP in Ref 2.2.1.

### **3.10 Authorized Material Purchases**

- 3.10.1** In addition to the Bill of Materials and known incidental installation materials required by this task order, the Government anticipates an additional \$20,000 in miscellaneous installation materials will be required. Bidders shall add an additional \$20,000 to their ODC quote for these items.

### **3.11 Post Installation**

- 3.11.1** Provide installation support during SOVT. Efforts to include:
  - 3.11.1.1** Provide cable ring-out and troubleshooting services to assist the project engineers during the post-installation System Operation Verification Tests (SOVT).
  - 3.11.1.2** Correct deficiencies discovered during SOVT.
- 3.11.2** Provide scanned electronic copy of the "redlined" markups of the IDP drawings to the Onsite Government Representative(s) in Adobe Acrobat Format (PDF).

## **4.0 Information Assurance (IA)**

- 4.1** Information Assurance (IA) Requirements: DoD 8570.01 - M and Defense Federal Acquisition Regulation Supplement (DFARS) Procedures, Guidance and Information (PGI) 239.7102 - 3 have promulgated that Contractor personnel will have documented current Information Assurance certification status within their contract. The Contractor shall ensure that personnel accessing information systems have the proper and current IA certification to perform IA functions in accordance with DoD 8570.01 - M, Information

Assurance Workforce Improvement Program. The Contractor shall meet applicable information assurance certification requirements, including (a) DoD - approved IA workforce certifications appropriate for each specified category and level and (b) appropriate operating system certification for information assurance technical positions as required by DoD 8570.01 - M. Contractor personnel who do not have proper and current certifications shall be denied access to DoD information systems for the purpose of performing information assurance functions. The contractor shall provide documentation supporting the information assurance certification status of personnel performing information assurance functions, reporting current IA certification status and compliance using CDRL Contractor Roster, DI - MGMT - 81596 in the format prescribed by the COR. This information to be provided as part of the Monthly Report, identified as Attachment (M) of the SE II Global Installation Multiple Award Contract User's Guide

## **5.0 GOVERNMENT FURNISHED PROPERTY**

Only the GFP identified as "provided" and listed in the quantity shown on the approved installation documents (see PWS section 2.2), or as specifically identified as GFP (or GFM/GFE) in this PWS shall be furnished by the Government. The Government may provide approved installation documents not listed on this PWS, but this section shall still apply. All GFP will be provided in an "as-is" condition unless otherwise specified. All responsibilities on behalf of the Government and the Contractor with regard to this PWS section shall be in accordance with FAR Clause 52.245-1.

### **5.1 Government Furnished Information (GFI)**

- 5.1.1** Applicable documents listed in paragraph 2.2 of this PWS are available on IMO Tracker Portal. All other documents listed in paragraph 2.1 are the contractor's responsibility to obtain. The Government may provide approved installation documents not listed on this PWS, but this section shall still apply.

### **5.2 Government Furnished Material/Government Furnished Equipment (GFM/GFE)**

- 5.2.1** Only the material/equipment listed in the quantity shown as "furnished with kit" or "GFM" or "GFE" on the approved installation documents or as listed in this SOW shall be furnished by the government. All equipment and materials listed as "IAF" in Installation Documents are the responsibility of the contractor to provide. All other material/equipment required in the performance of the tasks including ancillary and consumable materials shall be furnished by the contractor. The contractor shall be in compliance with the basic contract for the care and keeping of all Government Furnished Material/Equipment (GFM/GFE) which is transferred under this task order. All material/equipment not used shall be returned to the government at the end of the task unless otherwise specified in Section 9 of this PWS. All GFM will be furnished in an "as-is" condition unless otherwise specified. All responsibilities on behalf of the Government and the Contractor with regard to this PWS section shall be in accordance with FAR Clause 52.245-1.

## **6. OTHER**

- 6.1 Security:** All persons working at the (b)(7)(e) site under this task order shall be U.S. Citizens. Foreign Nationals will not be permitted access to the site. Contractor's request for visit authorization shall be submitted in accordance with DOD 5220.22M (National Industrial Security Program Operating Manual ) to the task originator. Personnel clearance requirements are defined in the Basic Contract, ref. 2.1. The technical requirements of this task order are unclassified; however, contractor personnel assigned to conduct the installation within security areas shall have a clearance appropriate for that area. The Contractor shall ensure all sub-contractors utilized for this PWS meet security requirements. All personnel scheduled to work at the PRC shall be enrolled in the RAPIDGate Program to ensure access to Ford Island.

### **6.2 Place of Performance**

- 6.2.1** Work will be performed at the locations listed in Paragraph 1.1.

### **6.3 Period of Performance**

**6.3.1** Period of Performance is by Tracking Number and as listed in Section 1.2 of this PWS.

### **6.4 Transportation**

**6.4.1** The Contractor shall provide transportation of materials and task personnel between work locations as required.

### **6.5 Inspection/QASP**

**6.5.1** Inspection of the work shall be accomplished as identified by the Quality Assurance Surveillance Plan (QASP), Attachment (2).

**6.5.2** The performance of the contractor and the quality of the work delivered, including any documentary material written or compiled, shall be subject to in-process review and inspection.

**6.5.3** Inspections may be accomplished at any work location by any authorized government personnel who shall be permitted to inspect work at all reasonable hours.

### **6.6 Acceptance**

**6.6.1** The SSC Pacific Contracting Officer Representative (COR) is responsible for the acceptance of the final deliverable products.

**6.6.2** The COR's final acceptance shall be based upon the NTR's or designated alternates recommendation, ensuring the task order has been satisfactorily completed, all deliverable products have been received and Government Provided Property and all residual materials, (notes, tech manuals, brochures, research material and remaining supplies), have been received.

### **6.7 Earned Value Management System (EVMS):**

**6.7.1** Contractor shall provide EVM data in IMO modified format. EVM data shall be uploaded to IMO system no later than close of business on the day before contractor's scheduled weekly EVM meeting.

**6.8 Follow-on Task:** Although there are no guarantees the fleet will have further requirements for this specific support, it is anticipated that there may be follow-on work associated with the award of this task order. The follow-on work is not currently defined but is anticipated to be of similar tasking as defined herein. The following is an estimate of follow-on work anticipated through FY 2014 resulting from the awarded task order.

Follow-on Efforts	Potential Value
FY-13	\$0K
FY-14	\$0K

### **7.0 DATA DELIVERABLES**

**7.1** Required CDRL items are listed in Exhibit A.

### **8.0 SUBCONTRACTING REQUIREMENTS**

**8.1** In accordance with the basic contract, reference 2.1.1.

### **9.0 CONSTRAINTS/SPECIAL REQUIREMENTS**

## 9.1 Material Management/Disposition Plan

- 9.1.1** Upon completion of individual task orders, the contractor shall remove all excess material/equipment from the work site, and stage the items in contractor furnished warehouse facilities. Unless prior arrangements are made via the task order, the contractor shall submit a disposition inventory list (CDRL A006) outlining Government property/material along with a request form for Plant Clearance action to the NTR and COR within 15 days after completion of each task.
- 9.1.2** After right of first refusal is received from the COR, the contractor shall coordinate with the NTR for the disposition of excess material and equipment.
- 9.1.2.1** Any material designated for retention by the government shall be inventoried, documented on a DD1149 and shipped to SSC PACIFIC C4ISR Department, 2293 Victor Wharf Access Road, Building 992, Pearl City, HI 96782. All material is to be clearly marked "Residual Material" and shall include the task order number and the NTR's name and code.
- 9.1.3** Hazardous Material storage and disposal shall conform to federal, state, and local regulations and the requirements of this Performance Work Statement. The contractor shall also comply with any additional Hazardous Materials requirements of host activities such as Government/Private shipyards, military bases, foreign countries, etc.

## 10.0 POC DESIGNATIONS

### 10.1 Navy Technical Representative (NTR)/Contracting Officer's Technical Representative (COTR):

(b)(6)	Desk:	(b)(6)	E-mail:	(b)(6)
	Desk:		E-mail:	
	Desk:		E-mail:	
	Desk:		E-mail:	
	Desk:		E-mail:	

#### 10.1.1 (b)(7)(e) Project Manager:

(b)(6) Desk: (b)(6) E-mail: (b)(6)

#### 10.1.2 Regional Shore Installation Manager (RSIM):

(b)(6) Desk: (b)(6) E-mail: (b)(6)

#### 10.1.3 Regional SPAWARSYSCEN Pacific Quality Assurance Manager:

(b)(6) Desk: (b)(6) E-mail: (b)(6)

### 10.2 Contracting Officer's Representative (COR):

(b)(6) Desk: (619) 524-2485 E-mail: (b)(6)  
Desk: (619) 524-2782 E-mail: (b)(6)